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#### ABSTRACT

The adequacy of the Department of Education's automated information system for the Guaranteed Student Loan Program was assessed. The review conducted by the U.S. General Accounting Office focused on the department's efforts and plans to correct system deficiencies, the reasonableness and propriety of major system costs incurred, and the contractor's performance under the most recent system contract awarded in April ,1979. It was found that the system continued to be deficient in four functional areas: the automatic reinsurance of state agency loans regardless of whether the student is qualified under the law and regulations; interest and special allowance payments; the collection of insurance premiums on federal loans; and the accumulation and reporting of the program's financial status in accordance with the needs of the department's financial managers. It is recommended that the needs of users of the Guaranteed Student Loan system should be identified and translated into specifications for meeting these needs. The department should follow a design approach that will assure that these management, features are adequately incorporated in the program's automated information system. Additionally, it was found that existing operations were converted to a new contractor with minimal service impact, but added costs were incurred and key contract elements remain to be accepted. (SW)

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# REPORT BY THE U.S.

# General Accounting Office

# The Guaranteed Student Loan Information System Needs A Thorough Redesign To Account For The Expenditure Of Billions

From the Guaranteed Student Loan program's inception in 1965 through fiscal year 1980, the Federal Government had guaranteed roughly 14.8 million student loans totaling over \$21 billion, while paying about \$6.8 billion for interest fees and default claims to States and lenders in support of program operations. Throughout the program's existence, the Government has not developed an automated information system that monitors adherence by participants to program rules and regulations, or that properly accounts for the expenditure of program funds.

The Department of Education needs to (1) determine the extent and degree of controls and accountability it wants to provide for the Goaranteed Student Loan program and (2) follow a design approach that will assure that these management features are adequately incorporated in the program's automated information system.

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# UNITED STATES GENERAL ACCOUNTING OFFICE WASHINGTON, D.C. 20548

HUMAN RESOURCES DIVISION

B-204708

The Honorable L. H. Fountain
Chairman, Subcommittee on Intergovernmental
Relations and Human Resources
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

This report discusses attempts by the Department of Health, Education, and Welfare, and more recently the Department of Education, to develop and operate an automated information system for the Guaranteed Student Loan program and makes several recommendations to the Secretary of Education to improve these efforts. As your Subcommittee requested in April 1979, our review focused on (1) the Departments' efforts and plans to correct system deficiencies, (2) the reasonableness and propriety of major system costs incurred, and (3) the contractor's performance under the most recent system contract awarded in April 1979.

As requested by your office, we did not obtain the Department of Education's comments on this report. We did discuss our findings with agency officials and have included their comments where appropriate. As arranged with your office, we plan no further distribution of this report until 7 days from its issue date. At that time, we will send copies to interested parties and make copies available to others on request.

Sincerely yours,

Gregory J (Ahart

Director .

GENERAL ACCOUNTING OFFICE REPORT TO THE CHAIRMAN, SUBCOMMITTEE ON INTERGOVERNMENTAL RELATIONS AND HUMAN RESOURCES, HOUSE COMMITTEE ON GOVERNMENT OPERATIONS THE GUARANTEED STUDENT LOAN INFORMATION SYSTEM NEEDS A THOROUGH REDESIGN TO ACCOUNT FOR THE EXPENDITURE OF BILLIONS

## <u>DIGEST</u>

GAO undertook this assignment at the request of the Subcommittee, which was concerned over the lack of progress in developing and operating an adequate automated information system for the Guaranteed Student Loan program.

The Department of Education's Guaranteed Student Loan program guarantees loans to undergraduate and graduate college students in two ways:

- -- Insuring the loans directly by the Federal Government (Federal loans).
- --Reinsuring loans insured by States (State agency loans).

In fiscal year 1980, the Department (1) insured \$504 million in Federal loans and reinsured \$4.3 billion in State agency loans, (2) paid about \$130 million for defaulted Federal loans and \$157 million for defaulted State agency loans, (3) recovered about \$40 million and \$25 million in student loan default collections from the Federal and State programs, respectively, and (4) paid interest and "special allowances" totaling about \$1.1 billion to lenders for both types of loans.

To keep track of and control this multibillion-dollar program, the Department maintains a computerized information system to process most program transactions involving its 14.8 million guaranteed loans and 12,000 lenders. This information system has been plagued with problems for eyears, and the Department has spent millions trying to resolve them. In April 1979, the Department hired a new contractor to operate the system for another 4-1/2 years (starting in October 1979).

The Subcommittee wanted to know

--what the Department's efforts and plans are to correct known deficiencies in the system,

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- SEPTEMBER 24, 1981

- --whether the major system costs under the previous contractor were reasonable and proper, and
- --how well the new contractor was performing.

At the request of the Subcommittee staff, GAO did not take the time to submit this report for formal agency comments, however, the report has been discussed with agency officials, and their comments have been incorporated where appropriate.

### SYSTEM DEFICIENCIES STILL UNRESOLVED

The system continues to be deficient in four functional areas. (See ch. 2.) One involves the automatic reinsurance of State agency loans regardless of whether the student is qualified under the law and regulations. GAO determined that some loans to students who had exceeded loan limits were being reinsured. One reason this can happen is that State agencies do not have access to the master loan file to detect possible program abuses by students, and even if they did, such access would be of limited value because the file is incomplete.

In a second area--interest and special allowance 'payments (which apply to both the State and Federal loans)--under the existing system, the Department pays the lenders' bills without validating them.

In a third area-involving the collection of insurance premiums on the Federal loans--if the lender does not pay the first bill, the system does not provide for rebilling the lender.

Finally, in the area of financial reporting, the system has yet to accumulate and report the Guaranteed Student Loan program's financial status in accordance with the needs of the Department's financial managers.

### WHAT NEEDS TO BE DONE?

Department efforts have not resulted in a Guaranteed Student Loan information system which adequately controls and accounts for program activities. These efforts have featured a piecemeal approach to identifying deficiencies and attempting corrections to a system originally developed without a completed system design.

GAO believes the Department should first determine the extent and degree of the controls and accountability it wants to provide for this multibilliondollar program. When that decision is made, the Department should change its development approach by adopting the more systematic process specified in its own policies for the design, development, and operation of automated information systems. This should include, first, comprehensively identifying what the users of the Gyaranteed Student Loan system need from it; then, translating such needs into specifications of how these needs will (See ch. 3.) Once the specifications are completed, the Department should develop the system under a competitively procured fixed-price contract. (See ch. 4.) Also, the Department should develop the plans and timetables needed to manage this sequence of activities.' (See ch. 3).

# REASONABLENESS OF MAJOR SYSTEM COSTS UNDER PREVIOUS CONTRACTOR

GAO did not identify improper charges to the earlier contract to operate the system. However, GAO believes that the contract costs incurred from fiscal years 1976 through 1979 were high based on

- --a 1977 Department study from which GAO concluded that the computer hardware could have been purchased for about half of what the Department eventually paid for computer usage during the 4-1/4-year period; and
- -- the costs of operating the system under the present contract, which are about two-fifths the estimated costs incurred by the previous contractor. (See ch. 4.)

# PERFORMANCE OF NEW CONTRACTOR

The new contract does not address the correction of system deficiencies previously discussed. Although parts of the conversion from the old to the new contractor were delayed up to 5 months, the adverse effects on program recipients, such as students and lenders, were kept to a minimum. GAO believes, however, that problems encountered with the conversion will add further to contract costs. Also, certain critical items to be provided by the contractor, such as documentation on how the system works, had not been accepted by the Department as of August 1981, and the Department needs to resolve this problem. (See ch. 5.)

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# ABBREVIATIONS

ADP automatic data processing

ED Department of Education

GAO General Accounting Office

GSL Guaranteed Student Loan

HEW Department of Health, Education, and Welfare

RFP request for proposals

### CHAPTER 1

### INTRODUCTION

The Guaranteed Student Loan (GSL) program makes low-interest, long-term loans available to students attending eligible post-secondary educational institutions--colleges; universities; and vocational, technical, and correspondence schools. It was authorized under title IV, part B, of the Higher Education Act of 1965. From the program's inception through fiscal year 1980, the Départment of Education (ED) 1/ had insured an estimated 14.8 million loans valued at an estimated of \$21.3 billion. 2/

Loans are usually made by eligible lending institutions using their own funds. Loan repayment is either quaranteed through State or private nonprofit agencies and reinsured by the Federal Government (State agency loans) or is insured directly by the Federal Government (Federal loans). Under the program, a student may borrow up to \$2,500 an academic year if an undergraduate dependent upon parents, up to \$3,000 a year if a self-supporting undergraduate, and up to \$5,000 a year if a graduate student. Before January 1, 1981, the aggregate GSL debt limit for undergraduates, both dependent and self-supporting, was \$7,500; for the graduate student, the limit was \$15,000, including undergraduate debt. With the enactment of Public Law No. 96-374 on October 3, 1980, the limits were increased to \$12,500 for a dependent undergraduate, \$15,000 for a self-supporting undergraduate, and \$25,000 for a graduate student effective January 1, 1981. For loans made after 1980, loan repayments start 6 months after the. student ceases to be less than a half-time student. The lender generally must allow the student at least 5 years to repay the loan in installments and may allow up to 10 years. Effective January 1, 1981, the law also allowed parents of dependent undergraduate students to borrow under the program with debt limits of \$3,000 per year and \$15,000 total for each student.

Generally the Federal Government pays interest to the lender on each insured or reinsured student loan until the student's repayment period begins, after which the student is responsible for paying the interest. On outstanding loans made from 1969 through



<sup>1/</sup>ED was established on May 4, 1980, with the reorganization of the Department of Health, Education, and Welfare (HEW) into two departments, the other being the Department of Health and Human Services. Before this, the GSL program was administered by HEW's Office of Education.

<sup>2/</sup>The number of students receiving these loans is less than 14.8 million since many students receive more than one loan during their schooling.

1980, 7-percent interest is paid. For new borrowers after 1980, 8 or 9 percent is paid depending on money market rates. 1/

The Government also pays each lender a quarterly special allowance fee throughout the life of the loan. This fee is a percentage of the average unpaid principal balance of all eligible loans held by the lender, and its purpose is to compensate for the difference between the interest rate the lender receives and the actual cost of money. The percentage rate paid is based on the average of the bond equivalent rates 2/ of the 91-day Treasury bills auctioned for the period. Previously, the law set a maximum limit on the average special allowance rate that could be paid for any 12-month period, with the highest limit set at 5 percent for the year ended September 1980. On October 3, 1980, the maximum limit was removed by Public Law No. 96-374, allowing substantially higher rates to be paid.

Should the student default on his or her guaranteed loan and the lender is unable to collect, the insuror, either the Federal Government or the State agency, pays the lender the principal and interest due on the loan. With State loans, the State agency then files a claim with the Government. The Federal payment to the State is 80, 90, or 100 percent of the amount paid the lender, according to the State's year-to-date default performance. Then, the insuror of the loan is left to recover the debt from the student.

when a State agency collects a defaulted debt, it must return to the Federal Government the same percentage that the Government originally paid the State. The Government allows the States an administrative cost fee of up to 30 percent of the moneys the collect. To help the States cover their overall administrative costs, the Government also pays them an amount up to 1 percent of the principal amounts that they insure each year.

<sup>1/</sup>Effective October 1, 1981, Public Law No. 97-35 will (1) raise interest rates for new graduate, self-supporting undergraduate, and parent loans as high as 14 percent, (2) require students from families having an annual income over \$30,000 to satisfy a needs test, and (3) reduce the loan limits of the self-supporting undergraduate to those of the dependent undergraduate. This law also requires that dependent undergraduates pay a loan origination fee not to exceed 5 percent on loans made on or after August 23, 1981.

<sup>2/</sup>The bond equivalent rate is the actual yield for the Treasury bill as opposed to its discount rate.

## PROGRAM STATUS AND HISTORY

During fiscal year 1980, about 2.3 million loans totaling about \$4.8 billion were guaranteed under the GSL program. The annual value and number of loans guaranteed under both State and Federal components of the program from 1966 through 1980 are shown in appendix I. Between fiscal years 1970 and 1978, the total number of loans guaranteed each year varied between 863,000 and 1.2 million, with the highest activity occurring during the 15-month period ended September 30, 1976. Meanwhile, the average loan amount steadily increased from \$940 in fiscal year 1970 to \$1,806 in fiscal year 1978, accounting for most of the growth in total loan dollars over the period. In contrast, most of the growth in total loan dollars for fiscal years 1979 and 1980 came from marked increases in the number of loans insured.

GSL obligations for defaulted loans in 1980 were reported at \$286.5 million, and default recoveries were estimated at \$64.1 million. 1/ Default payments are made from the Student Loan Insurance Fund. This Fund was established by the 1965 act. Appendix II shows the annual amounts of approved default claims, and appendix III shows the annual amounts of default collections returned to the Federal Government for fiscal years 1968-80. Total obligations for defaults through 1970 were about \$1.5 billion. This is 13.2 percent of total loans guaranteed that have matured. About \$210.3 million, or roughly 14 percent, of all defaults had been recovered from students and returned to the Government.

GSL interest and special allowance payments for 1980 were about \$1.7 billion. Appendix IV shows from the program's beginning the amounts of these payments, which total nearly \$4.3 billion through 1980. These payments increased markedly in 1978, 1979, and 1980, largely due to the special allowance contribution.

## STATE COVERAGE BY THE PROGRAM

When the Higher Education Act was enacted in 1965, 17 States had independent agencies which guaranteed loans to students. Initially, the Federal function under the act was to supply money to support State and independent agencies in the operation of their own student loan programs.

In August 1967, ED initiated Federal guaranteed loans for students lacking sufficient access to State programs. By June 1968, the direct Federal loan guarantee program was operating in 20 States. In 1968, Public Law No. 30-460 provided Federal

<sup>1/</sup>Of these estimated receipts, \$39.6 million was collected by ED, and \$24.5 million was the net amount collected by the States and returned to ED.

reinsurance of State and independent agency guaranteed loans. By, June 30, 1969, the Federal program was operating in 27 States and Puerto Rico, while 16 States and the District of Columbia had agencies participating in the reinsurance program.

During the next several years, participation in the reinsurance program varied between 23 and 26 States. In October 1976, Public Law No. 94-482 increased Federal payments to cover State agency costs. Since then, the number of participating State agencies has increased rapidly; and as of April 1981, 48 States, the District of Columbia, and one territory were participating in the Federal reinsurance portion of the GSL program.

## PROGRAM ADMINISTRATION

The GSL program, is presently administered by ED's Office of Student Financial Assistance (Office). This loan program comprises one of the three principal financial aid program groups sponsored by ED for postsecondary students and administered by the Office. The other two are the grants-in-aid program (Basic Educational Opportunity Grants) and the campus-based-aid group (College Work Study, National Direct Student Loans, and Supplemental Educational Opportunity Grants).

As of January 1981, the Office had about 420 personnel at its headquarters in Washington, D.C., and another 1,490 working in support of its financial aid activities at 10 regional offices. Included among these regional personnel were about 980 term workers 1/ employed primarily for GSL collection activities. The Congress had approved a reprograming of Office funds in mid-1978 to allow the hiring of the term workers. The Office's Program Operations Division at headquarters is responsible for processing GSL Federal loan applications, interest and allowance payments, and State agency default claims and collections. The regional offices handle Federal default claims and collection activities and most educational institution and lender review activities.

## GSL INFORMATION SYSTEM

The information system needed to support the GSL program is complex. It requires accurate input data on the program's borrowers and their 14.8 million guaranteed loans, 14,000 lenders, 8,000 schools, and 50 guaranty agencies. Given these data, the system should be able to process transactions, maintain financial accounts, and produce reports needed for the Office to operate and manage the program while checking to see that participants are correctly following GSL rules and regulations.

<sup>1/</sup>Employees hired for periods of from 1 to 4 years.

The heart of the GSL information system is a large-scale computer, which contains the system's master data base and processes most program transactions. Since October 1979, this computer and other system elements have been operated and maintained by the principal system contractor, Boeing Computer Services Company (Boeing). Boeing began converting this system from GSL's previous principal contractor, On-Line Systems, Inc. (On-Line), in April 1979.

Three organizations—two secondary contractors and the Office's regional and headquarters units—provide input to and use the system. One secondary contractor, System Management Associates, Inc. (System Management), enters most data into the computer system. This includes the input of student loan applications, lender loan disbursement notifications, and lender interest billings. The other secondary contractor prints and mails reminder letters to former students who may be about to default on their loans. The Office's regional and headquarters units have access to the computer through about 150 video terminals. Their use of the terminals is primarily for processing default claims and collections.

Three unique automated information systems have been attempted during the GSL program's life. The first two were replaced because they failed to adequately meet program needs. The first system, implemented in 1968, had not anticipated the rapid growth in the volume of Federal guaranteed loans and was quickly outdated. addition, the system had not adequately provided for default claim and collection activities. The second system, installed in 1972, experienced similar problems. When the third system design effort began in 1975, the second had yet to implement an automated collection, system, and the processing of a default claim would take as Aong as 2 years. As part of the third effort, the Office improved service (as of June 1978, the Office was reporting the average default claim processing time at 30 days) and substantially increased Federal collections starting in 1978. Yet a number of the major improvements that were intended for the third system have not been This third system is the principal subject of this accomplished. report.

## PREVIOUS GAO REPORTS

Since 1968, we have issued 17 reports that have discussed various aspects of the GSL program. Ten of these resulted from a requirement in the GSL legislation for us to audit annually the financial statements of the Student Loan Insurance Fund. Three other reports, issued in 1971, 1973, and 1977, dealt with GSL default collections, and the other four reports addressed GSL loan disbursement procedures (1970), the coordination of student aid programs (1972), the administration of student aid programs (1974), and GSL student bankruptcies (1977).



found the Fund's financial statements were consistently inaccurate or unsupported. Either they did not present fairly the Fund's financial position, or inadequate records precluded an opinion on the financial statements. Our annual reviews of the Fund conducted after the audit of the Fund's 1975 statements have not shown any improvements in GSL's financial reporting.

The three reviews that dealt with default collections addressed the growing number of defaults and the need to improve efforts to collect them. Two of these focused on the direct Federal loan insurance program, and the third focused on the Federal reinsurance program with State agencies.

### OBJECTIVES, SCOPE, AND METHODOLOGY

By April 3, 1979, letter, the Subcommittee on Intergovernmental Relations and Human Resources, House Committee on Government Operations, asked us to review the Office's efforts to develop and operate an adequate automated information system for the GSL program.

The Subcommittee requested that our review include the follow-ing three issues:

- -- The Department's efforts and plans to correct known deficiencies in its automated system, which are covered in chapters 2 and 3 of this report.
- --The major system costs incurred with a view toward determining whether they are reasonable and proper, which are discussed in chapter 4.
- --The performance of Boeing under a new systems contract warded in April 1979 to convert and operate the GSL information system, which is addressed in chapter 5.

We reviewed program activities at the Office's headquarters in Washington, D.C., and at the three largest regional offices--San Francisco, Chicago, and Atlanta--to learn how well the system was meeting the program's needs. We interviewed a cross-section of information system managers and users at these locations concerning Boeing's conversion of the system and what the Department had done and planned to do about correcting system deficiencies:

We interviewed officials from the then HEW Office of Inspector General, and from Department offices for finance, automatic data processing (ADP) oversight, and contract administration to determine their relationship with and control over the Office's GSL information system activities. We also met with HEW field audit personnel in Philadelphia and reviewed their audit of direct charges made by the previous principal system contractor (On-Line) to assess the propriety of its charges to the contract.



We met with past and present contractor officials and visited System Management's data entry facilities in Virginia Beach, Virginia, and Boeing's principal system facilities in McLean, Virginia, to review the contractors' activities and to evaluate the appropriateness of the type of contracts.

We contacted State guaranty agencies in Virginia, Pennsylvania, and New Jersey and obtained 52 student loan histories from the States to check instances of reinsurance transactions that conflicted with Federal regulations, which our analysis of the system had suggested was occurring. We also contacted 16 States, including the 3 mentioned above, to determine if they were notified of loan disbursement exceptions identified by the Office.

To evaluate the reasonableness of systems costs, we collected available cost and activity data from contract files at the Office and Department levels. We also reviewed requests for proposals, contracts covering GSL, and available reports covering GSL operations over the past 5 years.

The annual data on program activities included in this report (for example, dollar amount of loans guaranteed and defaults collected) were provided by the Office from financial records previously judged by us to be inaccurate or not adequately supported. The Office also presented us with conflicting data from one reporting period to the next, especially regarding State reinsurance activities. Because of this, the reader is cautioned that the program data presented here may be subject to significant error.

## CHAPTER 2

## WHAT'S WRONG WITH THE GSL INFORMATION SYSTEM?

The principal deficiencies in the GSL information system can be categorized into two broad areas:

- -- Incomplete data and inadequate controls pertaining to the program reinsuring State agency loans.
- --Previously identified system deficiencies related to our financial audits of the Guaranteed Loan Insurance Fund which have not been corrected.

# DEFICIENCIES IN THE STATE AGENCY REINSURANCE PROGRAM

The largest and fastest growing portion of the GSL program involves the reinsurance of loans by the State agencies. Through fiscal year 1980, the States had insured about \$14.8 billion in loans as compared with \$6.5 billion in direct insurance by the Federal Government. Further, the States' annual dollar share of new loans insured increased from about 44 percent in 1973 to about 90 percent in 1980 and is expected to continue to increase as agencies are established in the States and territories not having them.

The Government's policy is to automatically reinsure State loans. Our review of records generated by the system showed that some loans should not have been made because students had exceeded the loan limits in the law. The Federal Government's reinsuring loans that should not have been made results partly from inadequacies in the GSL information system:

- --State agencies do not have access to an Office master file of student loans and, thus, are unable to detect possible program abuses by students active with more than one agency.
- -- The Office, in turn, is unable to assure that students receiving agency-insured loans meet basic program requirements because the Office's master loan file is incomplete.

Also, because of incomplete data in the GSL information system, the Office pays the States' default claims without determining whether (1) the State had insured the loan or (2) the Federal Government had reinsured it. Further, the system cannot provide an up-to-date status of State collections of defaulted loans and the related repayments still due the Government.

Because of the existing deficiencies, ED has relied on site reviews of State agency operations as a means of monitoring the GSL program. However, in our opinion, site reviews are not adequate to compensate for the system deficiencies.



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Details on these problems are discussed below.

### State loans are automatically reinsured

The Federal Government is notified of loans insured by the State only after they have been disbursed to the student. Federal reinsurance at this point is automatic. The Office evidently intended to identify loans that did not meet GSL program requirements, because it would routinely match each loan disbursement notification received against its previous loan history for the student. This match checked for conditions, such as students exceeding loan limits or being in default of a previous loan, and generated exception reports.

Officials advised us that these exception reports were sent to the State agencies, yet the Office did nothing to follow up on them. Fifteen of 16 State agencies we checked with said they had never received exception reports. In any event, it is not clear what the States were expected to do with them since the loans had already been insured and reinsured.

Of 479,000 loan disbursement notices we identified for October 1978 through August 1979, 16 percent (76,500) generated exceptions. Of the notices generating exceptions, 17 percent involved disbursements exceeding various loan limits. These disbursements, if correctly reported, should not have been reinsured by the Government. In addition, 50 percent of the disbursements with exceptions had such conditions as ineligible school or lender code numbers. Office officials suspect that many of the code number exceptions occurred because the Office's school and lender files were incomplete or in error, and not because of actual ineligibility. 1/

To explore the legitimacy of those exception reports with loan limits exceeded, we selected a small group for further analysis relating to loans in New Jersey, Pennsylvania, and Virginia. We obtained from the appropriate State agency its loan history for each student involved. We compared each of these histories with the student's loan history on the Office's master loan file. Our purpose was to distinguish between exceptions to Federal reinsurance regulations that would denote program abuse and those that may have been caused by incorrect data entry or other processing errors. Although this examination lacked any statistical validity from which to project the extent of program abuse (only 52 of the 76,500 exception reports were analyzed), it did identify instances of abuse

<sup>&</sup>lt;u>1</u>/Another 49 percent of the disbursements with exceptions were for duplicate submissions. An official suspected that this might be due to loan notifications coming from both the lender and the State. These percentages (17, 50, and 49) add to more than 100 percent since some disbursement notices contained more than one exception.

for which our review showed an absence of controls. It also found instances of missing or conflicting data. Among the 52 exceptions, we found the following examples:

- -- The State and Federal files agreed that a loan limit was exceeded--15 instances. This indicates the State should not have insured the loan.
- --The Federal file did not show a prior loan shown on the State file--2-instances. This indicates that the loan may not have been reported by the State or the loan was subject to an exception report. (See p. 11.)
- --The State file did not show a loan that had previously been reported to the Federal file--21 instances. This may indicate that the loan initially was incorrectly reported, that it underwent a cancellation that was not reported to the Federal Government, or that the State file is incorrect.

## States lack access to loan history file

State agencies have not been given access to the Office's student loan history file, a master loan file containing information on both State and Federal loan disbursements. As a result, the States are not able to identify loan applications by students who are active in more than one State and may be abusing the system. Such abuse can occur when students, using various combinations of different schools, or agencies or residences in different States, acquire sums of interest-free money in excess of program loan limits or after defaulting on a previous loan.

While the Office does not know how much abuse is occurring in this area, our examination of the 52 disbursement exceptions showed 6 instances in which a student exceeded a loan limit or received a loan after defaulting on a previous loan while the State insuring the loan was unaware that the student had one or more previous loans insured by another State.

In late 1978, the Office agreed to a pilot program to provide one of the State agencies with routine access to the loan history file through a computer terminal. The program was never implemented even though the software for it was developed. An Office official pointed to the pilot program's low priority as the reason for this.

## Incomplete Office loan history file

In July 1979, the Office suspended the requirement for most State agencies to submit loan disbursement notices,  $\underline{1}$ / intending to replace the notices with a semiannual submission by the States of an inventory of their loans.

At that time, Office officials estimated that their master loan file was missing records for about half of all disbursed State loans. Lacking these records, the file could not be relied on to provide the complete loan history needed to determine a student's eligibility status. One Office official believes that factors causing the missing records included: (1) the State agencies may not have submitted notices for all loan disbursements, since there was little incentive to do so, and (2) submitted loan notices that registered exceptions (see p. 9) were not added to the master file.

Further, records entered in the file for both State and Federal loans lack important information. Office officials stated that student default information has not been posted to the file since 1977 and default repayment information is not part of the file. This information is needed if previous unresolved defaults are to limit a student's eligibility to receive further loan guarantees. 2/Although students are informed that they will be ineligible for further guarantees if they are in default on a previous loan, the Office is in no position to assure this requirement with much of the defaulting student population. Also, ED's Office of General Counsel told us that the law is silent about preventing the guarantee of a loan to a student currently in default, provided the default was at a school other than the student's current one. The General Counsel doubts ED's authority to interpret the law to prevent the guarantee of such a loan.

At the time of suspension of disbursement notices mentioned above, the Office planned to start semiannual inventory reporting by the States in the fall of 1979. As of March 1981, this semiannual reporting had not begun. While this will result in a more complete loan file, new loan information will be up to 6 months late getting into the file. This leaves the student with a 6-month window during which the system has no knowledge of his/her loan activity.



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<sup>1/</sup>A few States agencies making hard-copy submissions continued to do so.

<sup>2/</sup>While individual student repayment information concerning Federal loan defaulters is available in the system, the process to retrieve it is largely manual and time consuming. Repayment information concerning individual State agency defaulters is not submitted by the agencies and thus is not entered in the System.

# State default claims paid without validation

The Office pays State default claims without validating the legitimacy of the claims or of the original loan. States submit claims for defaulted loans by listing each defaulted loan for which they seek payment. The Office accepts these lists and pays the claims without any supporting evidence of the original loan, such as a copy of the loan note or of the State's insurance commitment to the lender. Furthermore, the Office does not check to determine that the State originally reinsured the loan with the Federal Government or that the loan was made in compliance with the program's regulations. 1/ Office officials stated that the system would not prevent payment of the same claim more than once if it were resubmitted with a changed submission date.

# Current status of State default repayments still due the Government is not available

Since the beginning of the program through fiscal year 1980, the Federal Government had paid State agencies an estimated \$752 million for defaulted loans. When the State agency succeeds in collecting any of the defaulted moneys from the student, it is required to pay back to the Government the same percentage it originally received less a fee of up to 30 percent to cover administrative costs. Yet, before the first quarter of fiscal year 1980, the Office had not asked for sufficient data from the States to determine how much of the original defaults paid by the Government remained to be collected by the States versus how much the States had written off as uncollectible with termination of their collection efforts. The Office needs this information to evaluate collection efforts by the States and to more accurately forecast and provide for allowances for future losses. 2/

During the last three quarters of fiscal year 1980, the Office worked to collect more complete information on the status of State agency activities, including defaulted State insured loans. An official told us in October 1980 that the Office had succeeded in obtaining this information from all State agencies using a more complete reporting format, but had not yet automated the processing of the responses. He could not give us a consolidation of repayment status data—for all States, nor did he know of any plan to

<sup>2/</sup>This information is needed for the Fund's financial statement required by section 432(b)(2) of the Higher Education Act of 1965.



<sup>1/</sup>As noted on page 11, before July 1979 the Office was notified of agency insured loan disbursements at disbursement time.

incorporate these data into the information system's data bases that are maintained by the principal system contractor. As of June 1981, a consolidated quarterly status report was being provided by one of the secondary contractors, but the Office could give us this quarterly report based on edited and corrected State agency responses only through the quarter ended June 30, 1980.

Office's program review of States does not compensate for system deficiencies

With unvalidated or incomplete State agency information in the system, the Office has relied on onsite reviews of the agencies as a check to see that they are administering their student loan programs as required by Federal law. These reviews are intended primarily to verify the stated policies and procedures the agencies follow in operating their programs, rather than to check individual loan transactions. Before the summer of 1979, the Office had not reviewed State agencies since 1974. An Office official stated that, during 1979, the Office began making reviews again. Then, in May 1980, after completing 17 State agency reviews, the Office suspended them because of a shortage of funds. As of March 1981 these reviews were still suspended pending the availability of funds.

We do not believe that the onsite reviews can compensate for system deficiencies, such as the lack of State access to the master loan history file or the incompleteness of the file itself, since the reviews are not performed regularly and are performed after loans are insured and disbursed.

### PREVIOUSLY NOTED DEFICIENCIES PERSIST

As part of our prior financial audits of the Guaranteed Loan Insurance Fund, we have repeatedly reported on three major GSL information system deficiencies: (1) interest and special allowance payments to lenders are not validated, (2) lenders are not rebilled for insurance premiums past due, and (3) GSL financial transactions are not reported or reconciled to financial records. As of April 1981 these deficiencies persisted.

# Interest and allowance payments . are not validated

Each quarter, lenders bill the Government for interest and special allowance fees on the insured and reinsured loans they have made to students. In fiscal year 1979, the Government paid about \$1.1 billion in these fees. The Office accepts and pays these bills without verifying the number of loans or the principal loan balances that the lender uses to calculate its charges.

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For the Office to verify numbers and amounts of loans held by each lender would require significant effort. For example, student loans are often transferred among financial institutions, students finish school and become responsible for their own interest (but not special allowance payments), and the loans are repaid to lenders over time or enter into default status and are paid by the Government. Each of these events affects the principal balances which are owed to the lender and on which interest and allowance fees are based.

In 1975, the Office initiated an effort featuring the concept of an independent escrow agent whose role would be to receive, disburse, and monitor the funds moving between lenders and students for the Federal portion of the program. In this position, the agent would be able, among other things, to independently determine the interest and allowance fees due the lenders. This effort did not proceed far before being preempted by higher priorities and was terminated in 1977.

Office officials believe that lender reviews by the regional offices can help compensate for the lack of validation of interest payments. In fact, reviews of 899 (6.1 percent) of the program's 14,664 active lenders during fiscal year 1980 resulted in a return of about \$3.3 million in interest overpayments to the Government. At the same time, officials in two of the three regional offices we visited stated that their organizations were understaffed and could not review their entire GSL lender populations. Furthermore, they stated that the GSL information system was inadequate to support their review activities.

In support of lender review activities, the Office has for the last few years required lenders to submit annual status reports of their total student loan holdings. However, the Office has not had an automated process for reviewing interest billings that could use the information from these status reports. Furthermore, use of this status report information is limited by the fact that its special allowance data (which represent loan balances at a specific date) are not directly comparable with the data from the billings (which represent average quarterly balances).

In October 1979, access by the Office's lender review organization to the GSL program's automated data was interrupted with the change in GSL contractors. As of March 1981 this access had not been restored although efforts to automate the comparison of lender status report data with data from interest payment records had been underway since April, 1980. This comparison is intended to be performed annually and will identify, as candidates for review, lenders with data inconsistencies or activities that exceed specified limits.



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Since March 1980, the Office has been working to develop and automate reasonableness checks on interest and special allowance payments by comparing selected data items on each lender's bill against those of its prior bills. These checks will identify inconsistencies in the billing information submitted by lenders and suggest the possibility of lender errors to be further examined. As such, they are only one of a number of functions which the Office believes can be combined to increase its control over interest payments. Others include: (1) the comparison of lenders' status reports with their interest payment records and (2) the periodic review of lenders either by the Office or through arrangements with other organizations charged with the responsibility of auditing lenders. While the Office stated that it has been working to establish these individual functions, it acknowledges that it has not been able to take a coordinated approach to their development that would include developing an overall validation process and determining its effectiveness. An official told us that the Office's funding requests to pursue the approach had not been approved by the Department.

# Insurance premiums past due are not rebilled

To obtain insurance of a Federal loan, the lender should first pay the Government a one-time insurance premium of 0.25 percent per year of the loan's principal. The Office bills the lender for this premium following notification of the loan disbursement. In fiscal year 1980, lenders paid about \$2.8 million in premiums.

If the lender does not pay the initial bill, the system does not routinely determine payments past due and rebill the lender. Unless the Office is prompted by exceptional conditions to look at an individual lender's insurance records, the system does not follow up on the past due bill. As of May 1981, this situation had not been corrected.

# Financial transactions are not reported or controlled adequately

ED's Division of Financial Management (Finance) is responsible for maintaining the official GSL accounting records used for financial reporting and control. The Office has not been accumulating and reporting to Finance data on the activities of many of its GSL accounts. This reporting is necessary to meet Finance's needs.

Beyond the difficulties of reporting GSL data to Finance are the incompatibilities between Finance's and the Office's systems. The two systems organize their data according to different variables (for example, Finance records State agency collection transactions by claim number, whereas the Office records the same by the student's social security number). Further, Finance uses a

different code system for identifying lenders and schools than the Office does. Much effort is required to overcome these incompatibilities when forwarding GSE data to Finance. In any effort to correct the Office's GSL system, ED should consider the need to improve compatibility between the two systems.

In September 1977 and September 1978, we issued reports deferring our annual financial audit of GSL activity. This was done because previously identified deficiencies had not been corrected since the financial accounting system was last audited and judged unacceptable by us for fiscal year 1975. Major deficiencies moted included inadequate financial reporting and controls.

In December 1978, Finance identified for the Office the GSL financial account submissions considered necessary to meet Finance's reporting requirements for fiscal year 1979. According to a Finance official, of 64 different accounts required, 12 were not being provided or were being provided in an untimely fashion. For the other 22 that were provided, most were deficient to the point of being unauditable. In October 1979, we again reported that the previously reported deficiencies remained uncorrected. More recently, Finance told us that the status of GSL reporting was essentially unchanged during fiscal year 1980 from what we reported in 1978 and 1979.

### SUMMARY

The GSL information system has deficiencies in the following areas or functions: (1) the State agency reinsurance program, (2) interest and special allowances payments to lenders, (3) billing of insurance premiums, and (4) financial reporting. In the State agency area, where the large majority of student loans now occur:

- -- The Office automatically reinsures State loans without checking to see that they meet Federal regulations.
- --Each State lacks access to any history of a student's prior loan activity with other States or with the Federal program to help identify unqualified loan applicants.
- --The Office's loan history file, intended as a complete history of Federal and State student loan activity, is incomplete.
- -- The Office pays claims on defaulted State loans without assuring that these claims are valid.
- --The Office cannot provide an up-to-date status of State collections of defaulted loans and related repayments due the Government.

In our view, ED's onsite reviews of the State agencies do not compensate for these-deficiencies since they are not performed regularly and are performed after loans are insured and disbursed.

Because of inadequate controls, we made a limited examination which identified instances of reinsured State loans that exceeded student loan limits or that were made to students who had previously defaulted on earlier loans.

with interest and special allowance payments, a function that applies to both State and Federal loans, the Office has made payments for bills from lenders with little control by the system to assure the bills' validity. Annual status reports have been obtained from lenders for the last few years but have not been included in the automated system to check billings. In addition, the Office does not consider itself adequately staffed to provide for the lender reviews that might compensate for the system's lack of controls. Also, current Office initiatives to (1) compare lender status reports with interest billings and (2) check each lender's current bill against its prior bills are only parts of an overall validation process the Office believes is needed to increase controls. The Office acknowledges that it does not have the resources to develop these initiatives within an overall validation process and then determine the effectiveness of the process.

Regarding insurance premiums billed to lenders, delinquent payments are not routinely rebilled or otherwise pursued.

Finally, in the area of financial reporting, the Office has not accumulated and reported the GSL financial accounts needed by the Department's financial managers and the Office's program administrators for financial reporting and control purposes.

These deficiencies prevent the Office from accurately accounting for the expenditure of billions in GSL program funds. At the same time they present the opportunity for students and lenders through error or abuse to obtain more money than they are entitled to.

Chapter 3 sets forth the actions needed to correct these deficiencies, which include a thorough redesign of the information system;

## CHAPTER 3

## WHAT NEEDS TO BE DONE?

The Department of Education and its predecessor agency have not developed a GSL information system which adequately accounts for and controls GSL program activities. Their efforts have featured (1) a piecemeal approach to identifying deficiencies and attempting corrections to a system originally developed without benefit of a comprehensive identification of user needs or a completed system design and (2) several reassignments of organizational responsibilities for managing the principal GSL information system contract. . With the aid of user input, the Department needs to determine the extent and degree of the control's and accountability it wants to provide for this multibillion-dollar program. When that decision is made, we believe the Department needs to ... change its basic approach to developing the GSL information system. ED should follow its policies for the "life-cycle management" of an ADP system. This should include identifying a comprehensive set of user needs to be satisfied by the system, then thoroughlyredesigning the system, based on those needs.

## WHAT IS LIFE-CYCLE MANAGEMENT?

In June 1977, HEW issued a staff manual containing a comprehensive policy for the life-cycle management of an ADP system, 1/which in turn was adopted by ED at its formation in 1980. The policy spells out key life-cycle management activities, including (1) user needs identification, (2) system design specification, (3) cost justification, (4) acquisition and development planning, and (5) operational evaluation. These activities, adequately performed as specified by Department policy, are generally considered necessary for a successful working system. In the case of the GSL system, the Office of Student Financial Assistance is responsible for these activities. The Office has not adequately accomplished these activities.

# User needs not fully identified

According to the Department's ADP policy, established in June 1977, the design and development of a system that meets user needs requires that those needs first be fully defined: 2/ The Office could not give us any definition of user needs resulting

<sup>2/</sup>Users, in the case of the GSL information system, include the regional offices, the Office's headquarters staff, and the ED Finance Office. Other potential users include the State agencies.





<sup>1/&</sup>quot;Life-cycle management" is a commonly accepted concept for the management control of ADP system development and operations.

from a comprehensive study and analysis of the user environment performed before the last major redesign of the system in 1975 or since. An official said that the Office had no formal process for defining these needs. We believe that the system deficiencies, discussed in chapter 2, are due partly to this lack of a comprehensive identification of user needs. For example, a comprehensive identification of user needs, which the system would then be designed to satisfy, would include not only the Office's need to reinsure the loans insured by guarantee agencies (which the system does) but also its need to validate that these loans were properly reinsured if and when default claims are filed against them (which the system does not).

We identified some conditions in the Office that would hamper its development of a statement of user needs. Communication among Office components concerning the information system has been acknowledged by Office officials as poor. Meetings held within the Office and intended to improve GSL operations lacked regularly assigned representatives from the divisions invited to attend and lacked recorded minutes of the proceedings. There has been no continuing liaison group within the division responsible for system design and development to address and coordinate GSL user needs. Users in the regional offices were previously left to satisfy many of their needs by writing their own ad hoc computer programs. During the last half of 1978, Office officials estimated that 25 percent of the system's terminal use during working hours was taken up with ad hoc activities unknown to the Office official who was most responsible for managing the system.

During 1979, the new contractor (Boeing) looked at some areas of user needs, and the Office official managing the system requested written requirements from users at headquarters and at the regional offices and met with regional office representatives once or twice to explore reporting requirements in the collections area. However, both the contractor and the Office official were then and during 1980 (see ch. 5) heavily involved with converting the existing system and did not have sufficient time to conduct a comprehensive needs survey. With a program of the size and complexity of GSL, the Office's effort should be more comprehensive and formalized.

### Systems design not completed

The development of a comprehensive and detailed system design is another of the life-cycle activities required by the Department's 1977 ADP policy to ensure a successful working system. This activity consists of the translation of user needs into system specifications that identify how these needs will be satisfied. Department policy also requires that the design be completed before pursuing system implementation. The Office has not, however, taken this approach to the design and development of the GSL system.

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The previous principal system contract with On-Line, beginning in June 1975, sought to replace an earlier GSL system. The 1975 contract was to be an initial 24-month system design and pilot feasibility effort followed by a year of putting the design into operation. By the end of 1975, pressure from outside the program to show more immediate improvement in the collection of defaulted loans had caused the Office to focus instead on an accelerated project to develop and operate the claims and the collection-receivables parts of the system on a national basis.

This effort was later followed by others to develop and operate the other parts of the system, including the processing of loan applications, insurance billings, and interest payments. Meanwhile, the Office continued to use parts of the contracted system which preceded On-Line to support the program. What occurred during the On-Line contract period was a hurried effort to put a system together piecemeal with many parts not well defined or integrated with one another.

We could find no evidence that this system, begun in 1975, ever had a total system design. In January 1977, HEW's Office for Information Systems Oversight concluded a 6-month review of the GSL information system. Its report stated that the system lacked both an overall system design and detailed functional specifications. The report expressed concern that, as different pieces of the system were developed, they might not fit together, forcing major system revisions that would require added time and cost to complete. According to On-Line officials, they had never seen a total system design from the Office, nor were they ever asked to develop one. Over an extended period of system development, design instructions from the Government were usually given to the contractor orally.

Since mid-1977, the Office has worked on designing two areas of the system: the collection of Federal loans in default and the reporting and control of financial information. With the first, progress has been made. An automated collection billing function was designed and developed, and over 900 temporary employees were added to the regional offices to assist in collections. 1/ Yet the automated function's contribution to increased collections is not clear. Our visits to the three largest regional offices (San Francisco, Chicago, and Atlanta) revealed that two of them were still maintaining their own collection payment files manually because each considered the automated function inadequate to meet their needs. A collection official in the third office stated that the system should have been better designed with all collection payment activity and associated files removed from the regional offices and made available from a central source through the automated system.

<sup>1/</sup>Annual Federal collections increased from \$9.4 million in 1977 to \$39.6 million in 1980. (See app. III.)

In the second area, the reporting and control of financial information, few results have been realized. Following our. September 1978 report concerning deficiencies in reporting GSL financial activities, the Office hired a consultant to study the financial reporting system. The consultant's January 1979 report outlined a concept for implementing an adequate reporting and control process. Many design issues were identified, but left unanswered.

After this, On-Line was asked to develop a detailed design specification for the financial reporting function. This resulted in an April 1979 document with the stated intent of complementing the existing system with no design changes. As such, requirements for improved accountability for interest payments and State agency claims and collections (parts requiring design changes) were left to be addressed elsewhere. 1/

After the latest principal system contract was signed in April 1979, the Office asked Boeing to define improvements needed in the GSL financial reporting and control system. Boeing's August 1979 report identified and cataloged 88 system deficiencies, many of which would require significant design efforts to correct. Since then, the Office has been addressing corrections to individual deficiencies or groups of deficiencies without reviewing the total design for a corrected system.

In a February 11, 1980, letter responding to our 1979 review of the student financial aid fund, the Department stated that the design for the financial area had been completed and implementation had begun with the corrected system scheduled to be fully operational by June 1980. We determined shortly thereafter that only the first of two phases of financial reporting and control improvements was scheduled to be completed by December 1980. Several of the tasks in this first phase were to design parts of the system, the implementation of which would occur at a date to be determined later. As of May 1981, the Office had not completed all phase one activities. In addition, the Office had identified but had not funded a second phase of financial improvements, considered by Finance to be equally important as the first in satisfying GSL financial reporting requirements.

# System planning missing

The Department considers proper planning for the design and implementation of an information system to be another essential

<sup>1/</sup>This initiative was greatly limited because the Office was in the process of completing a reprocurement of the GSL principal system contract (awarded in April 1979) which led to a change of contractor, equipment, and programming.

life-cycle management activity. However, we could not identify any Office-coordinated planning process or plans for completing the GSL information system. Furthermore, the lack of a total system design makes effective planning to implement an adequate system extremely difficult. Thus, the Office has not been able to identify and commit itself to an adequate plan to build a completed system from stated functional specifications, with a target schedule, and at an estimated cost. Without this, the Office cannot assure either the departmental budget support for, or the timeliness of, the effort. Both assurances are necessary to accomplish a completed system before being overtaken by changing events in the program.

In December 1979, the Office started a new planning initiative addressing Student Financial Assistance program operations and improvements. As of June 1981, this initiative had not progressed far enough for us to judge whether it will attempt the planning needed for the implementation of a completed GSL information system. The first working plan for GSL was largely limited to a schedule of periodic tasks needed to accomplish program delivery objectives using the existing system.

# No formal process established for life-cycle management

The application of life-cycle management to the design, development, and operation of an information system, such as GSL's, requires that a process exist for assigning life-cycle activities within the Office, identifying specific milestones throughout the life cycle, and monitoring and reviewing life-cycle activities to assure that the milestones have been met. Officials acknowledge, however, that the Office has not established a formal process for managing GSL's information system life-cycle activities. Limited resources were given as the reason for this.

#### ORGANIZATIONAL AND PERSONNEL CHANGES

Several organizational and personnel changes over the program's history have complicated the Office's life-cycle management efforts. Since 1976, organizational assignments for the GSL program have been in flux. In 1977, responsibility for the GSL program was transferred from a GSL program office reporting directly to the Commissioner of Education, to a new functionally structured organization under a deputy commissioner that administered all student financial aid programs in the higher education area. During 1978, responsibility for managing the GSL principal system contract was transferred from the new organization's Systems Design and Development Division (the division responsible for system development) to its Operations Division. Later in April 1979 the responsibility for the conversion effort to replace the principal GSL contractor was also transferred to Operations. Over a period of 1-1/2 years, the Systems Design and Development Division was



reduced from roughly 60 to 6 people as personnel were detailed to the Operations Division and to various GSL task forces that reported directly to the organization's deputy commissioner or his executive staff. This virtually stopped the Systems Design and Development Division's GSL activities.

In October 1979, an acting Deputy Commissioner returned some people and responsibilities for the GSL system contract to the System Design and Development Division. In April 1980, this official reassigned responsibilities for all Office systems contracts, including GSL, and chairmanships of all contract procurement committees to a member of his executive staff. Finally, in July 1980, responsibility for the GSL system contract was again reassigned to the Operations Division.

### CONCLUSIONS

For several years, the Office has unsuccessfully pursued the correction of the GSL deficiencies pointed out in chapter 2. We believe that a principal factor contributing to this situation has been the Department's failure to establish an effective process for GSL's information system life-cycle management. Because of this, an initial comprehensive statement of user needs was never developed for the GSL information system before proceeding with the system's design. Furthermore, the system has never been subjected to a total system design. Instead, the Office has approached its design in a piecemeal fashion. In addition, the Office has never developed the comprehensive plans and timetables needed for the design and implementation of a completed GSL infor-This approach has been and continues to be in conflict with departmental ADP system policy.

Another factor that we believe has complicated the Office's efforts to correct GSL deficiencies has been its past reassignments of responsibility for management of the principal GSL information system contract.

#### RECOMMENDATIONS

We recommend that the Secretary of Education direct the Office of Student Financial Assistance to:

- --Establish a process for system design, planning, and other key GSL information system life-cycle management functions.
- --Subject the GSL information system to a total redesign effort. This redesign should include the documentation and validation of the appropriate system controls needed to assure accountability for the expenditure of program funds.
- .--Develop comprehensive plans and timetables for completing and implementing a total GSL system redesign.



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## CHAPTER 4

## SOME CONTRACT COSTS APPEAR EXCESSIVE

Although we did not identify improper charges to the GSL system contracts, we believe that the costs incurred under the principal system contract with On-Line Systems, Inc., for fiscal years 1976-79 were high based on (1) the results of a January 1977 study by HEW's Office of the Secretary, from which we estimate that the computer hardware required could have been purchased for about half of what the Office paid the contractor for computer usage during the 4-1/4-year period, and (2) the costs of operating the GSL system under the present contract, which are about two-fifths of the estimated costs of the previous contractor.

Additional information on the contract costs for operating and developing the GSL system, on the propriety and reasonableness of such costs, and on the questionable use of the current contract for correcting system deficiencies is presented in the following sections.

Much of the effort involving design, development, and operation of the GSL information system has been performed under contract. During fiscal years 1974-79, the Department had 46 contracts with 28 different contractors for these activities. Appendix V shows obligations for the GSL information system activities performed under contract during this period. A major portion of these activities were performed under the principal system contract with On-Line. During fiscal years 1975-79, the Government obligated \$18.8 million to this contractor. This represents 46 percent of the \$41.3 million obligated for all GSL information system contracts over the 6-year period 1974-79. Because of its major position in both system activities and contract obligations, we focused our review of GSL's information system costs on the principal system contract with On-Line and its successor, Boeing Computer Services Co.

# PREVIOUS SYSTEM CONTRACT LACKED COST INCENTIVES AND CONTROLS

The Office's 1975 contract with On-Line used a time and materials approach that the Department considered appropriate for design efforts. Under this contracting method, the contractor provided computers, people, etc., at specified rates, but without specified end products, delivery dates, or firm costs. The contractor was instructed by the Office's GSL project officer and other officials to proceed with various tasks as work on parts of the system progressed. The contract was subject to a specific dollar ceiling. This ceiling could be and was raised every few months by modifications to the contract to allow for payment of charges for the next time period. This included any increases in the amount of equipment or labor needed to do the ongoing tasks.



A Department official stated that, when the contract was redirected early in its life to the development and operation of parts of the GSL system, this contract provided little incentive to the contractor to deliver timely products or to control system costs. Over its 4-1/4-year life, the contract was modified 25 times and its ceiling raised from under \$1 million to close to \$19 million.

As part of the January 1977 GSL report already referred to (see p. 20), HEW pointed out that, before instructing the contractor to develop and operate the system, the Office should have negotiated a new or revised fixed-price contract specifying end products, associated tasks, and delivery dates. Later in June 1977, this strategy was incorporated as part of HEW's (now ED's) new ADP policy to cover systems contracts in general. In spite of this, HEW's Division of Contract Operations, the unit responsible for the On-Line contract approach, never changed its contracting approach to reflect this policy.

# On-Line computer usage could have been less costly

HEW's January 1977 GSL report estimated that (1) computer equipment of the same type provided and managed by On-Line could be purchased by the Department for about \$2 million, or about 85 percent of the \$2.35 million annual rate the Department was paying On-Line for its use at the time, and (2) the equipment could be managed under contract for about \$500,000 per year. From this, we estimate that it would have cost the Government about \$5.7 million 1/ for the purchase and management of the maximum equipment configuration used by On-Line over the 4-1/4-year contract period. Contrasted with \$11.5 million that the Office paid On-Line to provide and manage equipment for system development and operation, the \$5.7 million alternative cost of purchased equipment represents a lost savings opportunity of 50 percent.

# System development costs were poorly controlled

Lacking a total system design as well as a fixed-price contract for development, the Department went about building the system and paying contractor costs as they were incurred. Neither the principal contractor, On-Line, nor the Department kept development costs separate from operating costs. Accordingly, we believe that the Department was unable to exercise effective control over either.

<sup>1/</sup>This equals \$2.8 million for purchase (\$2 million adjusted upward for the largest equipment configuration used during the period) plus \$690,000 per year (\$500,000 similarly adjusted upward) for management for 4-1/2 years.





Of the total \$18.8 million paid On-Line, our best estimate of development costs from very limited information is roughly \$7.8 million (\$3.8 million for computer usage, \$2.9 million for programming, and \$1.1 million for miscellaneous). This does not include any development work by other contractors or support by Office personnel.

Lacking a clearer picture of On-Line's activities in developing the system, we could not estimate if the development costs were
excessive. However, we did identify two significant activities
where the results were never used: (1) a considerable effort was
put into redesigning a financial reporting system called TORT
(Treasury/Office of Education Financial Reporting), with the contractor directed to start and stop work on it more than once,
though never completing it for use, and (2) a system to keep track
of State agency collections on defaulted loans was developed to
the point of testing it with live data, but it was never put into
operation. Considering the instances of unused development efforts,
the absence of effective controls over development costs, and the
deficiencies observed in the developed system, we believe that substantial funds were spent for which there were no tangible results.

# No evidence was found of contractor improprieties

The Subcommittee asked us if costs incurred may have been improper under the On-Line contract. Meeting with HEW audit officials in Philadelphia, we reviewed the results of their 1979 audit of contractor charges for direct costs. No significant exceptions surfaced here. We also looked for double charging of contractor personnel time to the contract and to the contractor's effort to develop a proposal in response to GSL's 1978 request for proposals (RFP). We found no evidence of this.

# INTERVENTION BY HEW'S SYSTEMS REVIEW BOARD REDUCES SYSTEM COSTS

An improved GSL system contract providing reduced systems costs was achieved in April 1979 due largely to the Department's Systems Review Board. Established in December 1977 as part of the Department's ADP oversight function, the Board oversaw large ADP projects within the Department to ensure cost-effective system developments or modifications in accordance with ADP policies. Review and approval of the Office's RFP to replace the On-Line contract was the Board's first matter of business during the first quarter of 1978.

As a result of the Board's review, the Office was made to change the RFP to require a contract providing (1) a fixed price for converting and then operating the existing system and (2) a

system that would be transportable 1/ at the end of the contract's term. In addition, the Board had objected to RFP provisions for improvements to the system without specifying what the improvements were. Its objection was withdrawn when the Office agreed to limit the RFP to a conversion of the existing system. This left the Office to address improvements to the system at a future date and as a separate contract initiative.

According to the Board's recording; secretary, who at the time was also director of the Department's ADP systems oversight division, no further review of the RFP or the Boeing contract that resulted from it was performed by either the Board or the division. Nor did either group further address the Office's GSL life-cycle management activities (i.e., system design, planning, etc.) that we found to be deficient and in conflict with Department ADP system (See ch. 3.) In May 1980, responsibility for GSL's ADP oversight shifted to the newly established Department of Education under the Office of the Assistant Secretary for Management. This office has since been working to establish an ADP Systems Review Board and an ADP oversight organization. As of June 1981, the Review Board had been established but not convened. In addition the ADP oversight organization was in place and had reported on the need to replace and integrate the systems used to manage and administer student \financial aid programs. This organization also had begun reviewing each GSL contract task order for technical and cost merit, as it was proposed.

### Operations costs now better controlled

The latest GSL principal system contract with Boeing resulted from a negotiated competitive procurement. It commits the contractor to operate the system with identified end products through a range of workload levels at specified prices. As contrasted with our estimate of \$3 million for operation costs in fiscal year 1979 under the previous contract with On-Line, the first 12 months of operations under the Boeing contract cost \$1.1 million, or roughly two-fifths of the previous amount for a comparable level of production activity.

# Development costs are still inadequately addressed

Significant design and development efforts will be required to correct the GSL system deficiencies described in chapter 2. The Office has failed to approach the correction of system deficiencies on a systemwide basis. Instead, it has continued to pursue this on the task-by-task basis discussed in chapter 3. It



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<sup>1/</sup>One that can be transferred and run on dissimilar computers with .

minimal conversion costs.

is doing so under the Boeing contract without a committed fixed price and date from the contractor for completing the total system. This approach also lacks the advantage of a competitively procured price for the development effort.

By April 23, 1980, the Department had issued 19 task orders to Boeing totaling \$500,000 (almost \$400,000 since January 1, 1980), two-thirds of which an Office official said addressed system deficiencies. It was considering issuing 12 others totaling about \$262,000, most of which also were to correct deficiencies, and the Office was discussing additional orders under the contract in the \$1 million range. These task orders are written under a \$5.3 million fixed-rate time and materials schedule (45 percent of the total price) in the Boeing contract. This schedule was provided to cover future system changes required by new legislation or policy changes as they occur over the contract's 5-year life.

After May 1980, the issuance of new task orders to correct deficiencies slowed as the Office has worked to (1) better identify the status of the conversion effort, (2) gain better control of Boeing's contract activities, and (3) prepare for the changes required by the Educational Amendments of 1980 (Pub. L. No. 96-374) that took effect on January 1, 1981. Officials have stated that their limited staff resources make the proper processing and administration of task orders slow and irregular. This in turn makes it difficult for the contractor to keep trained staff familiar with the GSL program available to the contract.

The use of the Boeing contract for system development, in addition to operating the system, closely parallels the approach used with the previous On-Line contract. The major difference is that the present contractor must commit itself to a fixed price for each development task before its initiation. This may help to control the cost of the individual task; however, it does not necessarily limit tasks to those needed to correct the system in a cost-effective manner and thus does not control costs for the total system.

### CONCLUSIONS

Although we did not identify improper charges to the GSL principal system contract with On-Line, expenditures for both development and operation of the GSL information system under this contract were not adequately controlled. Projections from the Department's own study showed at least \$5.7 million in lost savings from 1975 through 1979. Contributing to this condition was a time and materials contract approach that was more appropriate to design and feasibility efforts. It not only lacked incentives and cost controls but also later came to conflict with Department policy that was established midway through the contract's life.



With the signing of its latest principal system contract with Boeing, the Office has brought system operating costs under better control with a competitively procured, fixed-price contract for specified levels of operations. Yet systems development costs continue to be inadequately controlled because of the use of a contract a roach similar to that used in 1975. This approach attempts needed corrections to parts of the system on a task-by-task basis without first specifying the end products and obtaining a competitively procured price, a committed fixed price, and a set date from the contractor for correcting the total system. As such, it is in conflict with an earlier agreement with HEW's Systems Review Board and with ED's ADP policy for developing systems under contract. Furthermore, it presents difficulties in keeping trained contractor staff available to make major corrections to the system.

In the presence of these difficulties, management of the GSL system at the Department level under both HEW and ED has had limited success beyond the recent improved control of system operating costs. Contract management by the Department has not applied an appropriate contract approach to GSL system development. Similarily, ADP oversight by the Department has not gained adherence by the Office to departmental policies for the development of ADP systems under contract or to those policies for system life-cycle management (i.e., systems design, planning, etc.) discussed in chapter 3.

#### RECOMMENDATIONS

We recommend that the Secretary of Education direct the Office of Student Financial Assistance to implement Department policies for developing ADP systems by competitively procuring a GSL information system, at a fixed price and according to a prescribed plan once the system redesign recommended in chapter 3 is completed.

We also recommend that the Secretary of Education direct the Assistant Secretary for Management to provide ADP oversight of GSL system development efforts by the Office of Student Financial Assistance which ensures Office adherence to Department policies for ADP system life-cycle management (i.e., system design, planning, etc.) and for the development of ADP systems under contract.



### CHAPTER 5

### EXISTING OPERATIONS CONVERTED WITH

### MINIMAL SERVICE IMPACT / BUT ADDED COSTS HAVE BEEN INCURRED

## AND KEY CONTRACT ELEMENTS REMAIN TO BE ACCEPTED

Principal parts of the GSL system were converted from On-Line Systems, Inc., to Boeing Computer Services during 1979 as much as 5 months late, thus delaying a restart of most system operations. However, the impact of these delays on the recipients of program benefits, such as students and lenders, appears to have been kept to a minimum. At the same time, evidence suggests that the limited way in which the contractor converted the system will likely cause increasing system performance problems, such as long terminal response times, in the future.

Both the Office and the contractor claim that the other contributed to problems with the conversion. One alleged failure by the Office was its inability to provide the contractor with adequate or timely specifications for many of the system functions 1/to be converted. This led to interim substitution for some functions and the deferment of others. Providing these items in the future will result in additional costs. In addition, the contractor has filed a claim for about \$800,000 with the Government to recover addedy costs it incurred due to alleged Office delays.

As of August 1981, the Office had yet to approve the contractor's conversion of the system. Key contract items had not been accepted, and the issue of deferred functions remained to be resolved.

It is important to note that the scope of the Boeing contract is to convert and operate the GSL system and does not address the correction of the system's many deficiencies identified in chapter 2. Simply stated, the contract converts the existing system with its many deficiencies from one vendor's equipment and software to another's. Apart from the successful completion of the conversion, correcting the deficiencies of the system remains a separate issue.

### CONVERSION FALLS BEHIND SCHEDULE, DELAYING OPERATIONS

The conversion of the GSL system to an operational status by Boeing was accomplished late. This delayed the restart of most system operations by from 1 to 5 months.

<sup>1/</sup>Such as processing program transactions and maintaining financial accounts.





In its April 1979 contract, Boeing agreed to convert the existing GSL system and begin operations with Boeing equipment by October 1979. As of that date, only 3 of about 21 major functional areas of the system were available to system users:

-- The input of claims from lenders for defaulted Federal loans.

The input of collections from defaulted students.

-- The input of changes in a student's status, such as changes in address.

The claims and collections input transactions could not be further processed by the system but only held until various other system functions became operational. Over the next 5 months, most of the other major functional areas were converted and placed in operation.

On February 6, 1980, the Office's project officer for the contract reported to the Department's contracting officer that, of 182 system functions comprising the 21 functional areas to be converted under the contract by October 1979, 76 had been completed on time, 50 had been completed late, and 56 remained uncompleted. Of the last category, 40 had been deferred by the Government, and the other 16 were being worked on by the contractor.

# IMPACT OF CONVERSION MINIMAL TO DATE BUT COULD BE SIGNIFICANT IN THE FUTURE

The impact of the conversion on the operating program appears to have been minimal. Our inquiries with the two regional offices (San Francisco and Chicago) with the largest activities showed above normal backlogs for inputing claims and collections to the system for only a few weeks during the transition from the old to the new contractor. Our discussions with headquarters' Operations Division indicated no substantial delays in processing interest payments or loan applications.

We identified indications of a potential operating problem for the future. Over the first half of 1980, instances of terminal response time problems were observed by the Office as functions were completed and added to the system. During March 1980, a new function to correct for bad check payments by students was initially taking up to 8 minutes to process from a terminal. In another instance, the changing of a student's address typically was taking several minutes to process from a terminal. Processing times such as these severely reduce productivity in a GSL working environment that requires responses at the terminals in seconds rather than in minutes. These response time delays generally can be worked around or improved upon, and in fact these instances were.

Yet the Office's project officer responsible for the contract suggested that these delays were symptomatic of limitations to the method of data retrieval from the system as implemented by the contractor.

According to this official, acceptable response times depend greatly on the GSL system's ability to quickly retrieve from its computerized data files one piece of information, such as a student's social security number, from knowing another piece of information, such as the student's name. For the retrieval to be timely, the system should be capable of directly accessing the desired information in its computerized data files, rather than requiring all or large portions of the files to be searched. The official further stated that the GSL system has been implemented by the contractor with limited capabilities for direct access to data elements. This requires more searching of the computerized files, thereby contributing to response time problems. This condition grows worse as the amount of data in the files increases over time.

# FACTORS CONTRIBUTING TO CONVERSION DELAYS WILL RESULT IN ADDED COSTS TO THE GOVERNMENT

Both the contractor and the Government claim that the other contributed to conversion delays. Furthermore, alleged Government delays in providing materials and support to the contractor, if substantiated, will add further to the Government's costs. Their respective alleged contributions to the delays are discussed in the following paragraphs.

First, the contractor was alleged to be a month late in implementing two key computer programming packages required to operate the system. These packages had to be working before the testing of programs that performed system functions could begin.

For the Government's part, it was unable to award the Boeing contract, which allowed 6 months for conversion, in time for Boeing to convert the system and assume operations before the On-Line contract ended. As of the contract award in mid-April 1979, the GSL program was to be left without an operational capability for a 17-day period during October 1979. The Office elected to cover this period by negotiating a contract change with Boeing to compress the conversion schedule for an added fee. According to the Office's project officer, the attempted early conversion compounded the problems experienced with the effort and led to further delays.

The Office acknowledged that it failed to give the contractor adequate specifications for what it wanted done. In some cases, according to the contractor, the specifications were provided late, as were Office review and approval of the contractor's efforts in converting the system. In other cases, adequate specifications



could not be provided at all. One result of this was the deferment of 40 system functions. In his February 6, 1980, memorandum to the Department's contract administrator, the Office's project officer stated that the contractor had no further responsibility to produce the deferred functions under the contract's fixed-price conversion schedule and that, when properly defined and specified by the Government, they should be implemented under the contract's legislative and policy change schedule at additional cost. This matter had not been resolved as of August 1981.

Another costly result of inadequate Government specifications involved a subsystem for controlling the collection of defaulted National Direct Student Loans. 1/ This subsystem, similar in purpose to GSL's collection subsystem, was to be developed under the Boeing contract's fixed-price conversion schedule. However, the Office was only able to specify a skeleton for the direct loans subsystem which Boeing provided. This collection subsystem was implemented during 1980 in the regional offices on an interim basis. Later in April 1981, after providing more complete specifications, the Office initiated efforts to replace this interim subsystem with a fully functional subsystem at an additional cost expected to be about \$525,000.

Boeing has informed the Department that Government delays in providing specifications and reviewing products caused it additional expense in its attempts to meet contract conversion dates. In fact, the contractor brought in additional personnel during the latter part of the contracted conversion period when the conversion was clearly in trouble. To recover these added costs, the contractor has filed a claim with the Government for about \$800,000. paid, would almost triple the contract's original fixed conversion price of \$447,000.  $\underline{2}$ / In addition, the contractor has declared its intent to seek adjustments to the contract's fixed-price schedule to operate the converted system once the issue of the conversion is resolved. Further, complicating this situation, Boeing acknowledged to the Government before being awarded its contract that it was engaged in a procurement "buy-in" at a price 50 percent below its estimated costs. Because of this, the Government should look closely at the contractor's level of conversion effort before awarding moneys for any claims or adjustments.

<sup>&</sup>lt;u>1</u>/Another of the student aid programs administered by the Office. While this program's loan activities are conducted largely by participating schools, the Government provides up to 90 percent of the program's capital funding and shares with the schools the burden of collecting from defaulting students.

<sup>2/</sup>The Office paid Boeing an added fee of \$155,000 to accelerate the conversion schedule by 17 days.

# KEY CONVERSION ITEMS HAVE NOT BEEN ACCEPTED

In April 1980, the Office began a review to determine the status and acceptability of Boeing's conversion activities. In June 1980, employees of the National Bureau of Standards began assisting with the effort. This review, which was completed in September 1980, identified deficiencies with Boeing's conversion not acceptable to the Government, including: (1) system documentation was inadequate and incomplete, (2) changes to programming and documentation were not properly controlled, and (3) security subsystem 1/ and backup/recovery subsystem 2/ were not adequate. Another item which the review neglected to look at but which was included in the contract to be provided by Boeing was a training program for users of the system.

Proper system documentation and the maintenance of changes to the documentation and the programming it describes are vital in being able to modify and operate the system at minimum cost and disruption over its life. Properly maintained documentation is also most important when converting to a new system and/or contractor. Office officials have stated that poor system documentation, in place before the Boeing conversion, was a principal reason for the Government's difficulties with providing specifications to the contractor and reviewing the contractor's work for approval in a timely fashion.

A properly designed and implemented security subsystem is essential to protect the GSL program, with expenditures over \$1 billion a year, from fraud and abuse and to protect individual privacy. In June 1980, the project officer told us that a knowledgeable terminal user could fraudulently divert funds under the system without being identified.

An adequate backup/recovery subsystem is essential to protect Government files and records from permanent destruction or extended periods of unavailability due to equipment failure, human mistake, or natural disaster. Two instances of equipment failure and/or human error have already occurred, in November 1979 and June 1980, when the backup/recovery system failed to operate. This led to lost data which took an extended period to recover.



<sup>1/</sup>Consists of the physical and computerized controls and procedures which limit use of the system to only authorized persons and monitors that use to assure compliance.

<sup>2/</sup>Consists of the facilities, backup data files, and procedures needed to resume operation of the system following its interruption due to power, equipment, or program failure; operator error; fire; natural disaster; etc.

Finally, the availability of adequate training in the use of the system is necessary to assure that initial and future users are adequately instructed in its operations. This should include provisions for updating the training materials as changes are made to the system.

Also noted in the September 1980 conversion review findings were (1) the Office's previous loose administration and control of the Boeing contract and (2) its need to give Boeing better and more timely guidance in such areas as documentation and to provide better specifications for the work it tasks the contractor to perform. In discussing these points with us, Office officials pointed out that their limited staff resources greatly restricted their contract administration efforts.

As of August 1981, the Office had not approved Boeing's conversion of the system, although by February 1980 the Office had approved and the Department, had paid all but \$11,000 of the \$602,000 contracted with Boeing for the conversion.

#### CONCLUSIONS

The impact of conversion delays on the students and lenders serviced by the GSL program appears to have been kept to a minimum. At the same time, we identified the following potential future operating problems and added costs to the Government, both attributable to the conversion.

- --Limited contractor implementation of the system's computerized data files could lead to excessive terminal response times.
- --The inability of the Office to specify certain of its system requirements has caused the interim substitution of a system to collect defaulted direct student loans and deferment of a number of other functions that must later be provided at additional cost.
- --The Office's alleged lateness in providing the contractor with materials and in reviewing contractor products may require added funds in resolving the contractor's claim.

Finally, as of August 1981, the Office had not required the contractor to complete the conversion in a manner acceptable to the Department. Key conversion items that had not been accepted included: (1) full system documentation and a process for its maintenance, (2) properly implemented and documented security and backup/recovery subsystems, and (3) a user training program and provision for its maintenance.



#### RECOMMENDATIONS

We recommend that the Secretary of Education direct the Office of Student Financial Assistance to pursue a timely completion and acceptance of the contractor's conversion effort, including full system documentation, security and backup/recovery subsystems, a terminal user training program, and controls for maintaining and documenting changes to programming.

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APPENDIX 1

## GUARANTEED STUDENT LOAN COMMITMENTS

Average Fiscal loan		Total loans		Fede	eral	State and other	
year	amount	Number	Value	Number	Value	Number	Value
	*	(thou- sands)	lions)	(thou- sands)	(mil- lions)	(thou- sands)	(mil- lions)
1966	\$ 820	. 89	\$ 73)	)	)	)	`
1967	850	287	244 )	331 )	\$ 284 )	1,291 )	\$ 1,135
<b>1968</b>	873	490	428 )	)	· )	)	,,-
1969	892 °	756	674 )	3	)	j	•
1970	940	663	<b>811</b> ·	365	354	498	457
<b>197</b> 1	<b>998</b> .	1,017	1,015	482	484	535	531
<b>19</b> 72	1,061 "	1,201	1,274	692	708	· 509	566
. 1973	1;137	1,030	1,171	5 <b>9</b> 9	-655	<b>43</b> 1	516
· 1974	1,215	938	1,140	. , 507 ,	612	431	528
1975	1,310	991	1,298	505	661	486	637
1976 a/	1,408	1,298	1,828	522	740	776	1,088
1977	1,580	973	1,537	322	500	<b>65</b> 1	1,037
1978	1,805	1,085	1,958	268	<b>473</b> .	817	1,485
1979	1,976	1,510	2,984	277	541	1,233	2,443
1980	2,091	2,314	4,840	<b>236</b>	504	2,078	4,335
Cumulativ	, 18	1			,	•	
through	FY 1980	14,842	\$21,275	5,106	\$6,516	9,736	\$1 <b>4,7</b> 58
a/Thaliste	e transit	ian ann	ham (7:1 4	lancarada Ca		76)	

a/Includes transition quarter (July through September 1976).

## SUARANTEED STUDENT LOAN DEFAULT CLAYMS (note a)

Fiscal ,			Defaults	n 2 <sup>-3</sup>
· · year ·	٠.	Total .due.	Federal	State
			illions)—	a march realis
	•	- \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		<del>-</del> , -
1968 <u>b</u> /			\$ \$1-	
1969 <u>b</u> / - 1970 b/		. •		, , , , , ,
1971 <u>b</u> /	•	· · · · · · · · · · · · · · · · · · ·		1, *
1972 .		\$ 28.1	<b>\$</b> ∜16.0	., \$ 12.1
1973	•	52.4	•	21.0
1974		92.0	.,,55.2	36.8
1975 ·		121.9	761.2	45.7,
1976 <u>c</u> /		177.5	104.0	73.5
1977		189.4	120.9	68.5
1978		211.2	104.2	107.0
1979	•	226.7	. • 99 •8	126.9
1980 .		286.5	129.7	156.8

Cumulative through FY 1980

\$1,512.9 \$761.2

\$751.7

a/The amounts in the table represent obligations for approved default claims rather than expenditures.

b/Ahnual figures before 1972 unavailable.

c/Includes transition quarter (July through September 1976).

APPENDIX III APPENDIX III

#### GUARANTEED STUDENT LOAN DEFAULT COLLECTIONS

Fiscal year	Total	Federal program	Returned to Federal Government by States	
	•"	(millions)		
1968 )	`			
1969 )	* *		•	
1970 . )	8 6.4	\$ 3.3	\$ 3.1	
1971 )	, ,	•		
1972 )	,	•	,*	
1973		•		
1974	7.5	4.2	3.3	
1975	10.4	6.7	3.7 🙏	
1976 <u>a</u> /`	17.0	9.9	7.1	
1977	19.7	· -9.4	- 10.3	
1978	27.1	16:2	' 10,49 -	
1979	<b>58.</b> 1	35.8	2 <b>2.3</b>	
1980 /	64.1	39.6	/ <b>24.5</b> / .	
Cumulative				
through FY 1980	\$210.3	\$125.1	\$85.2	

a/Includes transition quarter (July through September 1976).

## GSL INTEREST AND SPECIAL ALLOWANCE PAYMENTS

Fiscal year		Total	Interest .	Special allowance
		· Friding To	(millions)—	<del></del>
* 1967		\$ 5 . A	5. 5.4	s
1968	•	21.0	. 21.0	<u> </u>
1969	¥ 1	48.4	48.4	
1970		85.5	80.5	5.0
1971		146.5	129.9	16.6
1972	• •	189.8	171.7	18.1
1973	. *	236.5	203.3	33.2
1974	•	307.2	222.2	85,.0
1975		336.3	209.5	126.8
1976 a/	τ.	350.1	253.3	96.8
1977 <sup>—</sup>		331.2	225.3	105.9
1978	• •	443.1	248.6	194.5
1979	*	697.2	295 :8	401.4
1980	<b>\</b> ' .	1,090.8	389.2	701.6
Cumulativ	'e	; ; . ; . ; . ; . ; . ; . ; . ; . ; . ;	: · · ·	- <del>.</del> .
through	FY 1980	\$4,289.1	\$2,504.2	\$1,784.9

a/Includes transition quarter (July through September 1976).

### GSL ADP CONTRACT OBLIGATIONS FOR FISCAL YEARS 1974-79

Fiscal		Total obliga-	Principal system contracts			_ cont	Data entry.		aim/ ection ters_	_	
	year	tions	COMINE	T, PMI	<u>ols</u>	BCS	AIDS	SMA	SGI	Rehab	Other
		•	v		(mi	llions)	•	,			·
	1974	\$ 2.41	\$ 0	.65	<b>\$</b> 0	\$ 0	\$1.01 <sup>°</sup>	<b>\$</b> .0	\$ .08	\$ 0	\$ .67 (10 contractors)
	1975	4.64	44	.60	1.65		.75	.46	129	.09	.36 (8 contractors)
	1976	6.16	1.30	<b>.73</b>	2,15		.07	.85		.97	.09 (5 contractors)
	1976 TQ	1.55	.24		.06	₹		.50		.62	.13 (3 contractors)
	1977	³ 9.21	.47	•	6.12		3914	1.33		<b>.52</b>	.77 (6 contractors)
	1978	6.39	`\		3.65		•	1.22		1.03	.49 (3 contractors)
	1979	10.96	, ,	•	<u>5.18</u>	2.07	*	1.34	,	2.37	<u> </u>
			2.45	1.98	18.81	2.07	1.83	5.70	\$ .37	\$5.60	,
	•	•			~		. ~	<b>/</b>	_	<i></i>	,
	Total	\$41.32	• ,	\$	25.31	•	\$7	.53	<b>\$5</b> .	.97	\$2.51 (20 contractors)

Legend

Rehab

Transition quarter (July through September 1976).
Computer Network Corporation.
Programming Methods, Inc. QTCOMNET PMI On-Line Systems, Inc.
Boeing Computer Services Co.
Automation Information Data Systems; Inc.
Systems Management Associates, Inc.
Systems Group, Inc. OLS BCS \* AIDS SMA SGI Rehab Computer, Inc.